Natural Resources Inventory and Assessment

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Recommendations

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RECOMMENDATIONS

This section presents the results of the Natural Resources Inventory and Assessment. Recommendations for River sites, Valley sites and sites grouped by subregion, are offered to guide local actions and Corridor Commission support through the years ahead. Joining forces, all actors involved can protect and enhance the natural resources of the Blackstone River Valley National Heritage Corridor for the health and enjoyment of generations to come.

RIVER SITES

The following sites, associated with the Blackstone River, have been identified through survey and analysis to have high significance in natural and cultural values. Each is described as to its location and salient features, the issues that surround it and the recommendations for action the Corridor Commission is suggesting.

1. Lonsdale Marshes (57)*

*The number in parentheses next to each site corresponds to its location on the Natural Resources Map

Description

The 250+ acre Lonsdale Marshes is one of the largest wetland complexes in northern Rhode Island. Much of this area has been acquired by the Rhode Island Department of Environmental Management (RIDEM) because it maintains a diversity of wetland habitats, including emergent cattail marsh, which supports several state-listed rare nesting birds. Its size and quality also make the Lonsdale Marshes one of the most important migratory waterfowl areas in the Blackstone Valley. Its scenic qualities within a highly urbanized context also contribute to the site's high natural and cultural values. Its historic and traditional land use values are less significant, but the site possesses both local and regional significance.

On the north side is the abandoned Lonsdale drive-in property. RIDEM has had this site appraised and is currently negotiating with the landowner. The purchase of this site will make possible the restoration of the former drive-in back to natural floodplain. The site has been targeted by the Army Corps of Engineers as one of its priority projects in an on-going effort to restore water quality and flow along the Blackstone River. The marshes could also play a role in restoring anadromous fisheries as a habitat area upstream from the lower four dams. RIDEM Division of Fish and Wildlife is planning to install a boat ramp nearby.

Volunteer clean-up projects at the Lonsdale Marshes have cleared a great deal of surface debris. On the Cumberland side, a project is being planned to eliminate a small hazardous waste dump as part of mitigation for construction of the Blackstone Bikeway through the area.

Issues

What should be the extent of restoration and flood storage? Should intervention be limited to asphalt removal or should the drive-in site be fully restored to its former state as a marsh? The wetlands are presently threatened by negative impacts from development. In addition to pollution from household runoff, such as pesticides, toxic organic compounds and phosphorous, there is runoff originating from a landfill site. Filling, sediment erosion and surface water diversion serves to decrease the water table and drain the wetlands. The ultimate result is a devastated water supply and a general disruption to vegetation and wildlife. Restoration would renew and extend the water quality and life-support functions of the marshes and offer a unique opportunity for natural interpretation.

Recommendations

The Corridor Commission is committed to the responsible management of natural floodways and floodplains, and therefore recommends the following :

- Support the ongoing efforts of all owners and groups involved in reclaiming the Lonsdale drive-in property, including but not limited to: the RI DEM, the Army Corps of Engineers, the EPA, and the Town of Lincoln. The site offers an opportunity to demonstrate how coordinated efforts can bring about restoration possibilities.

- Encourage the Town of Cumberland to consider strengthening their project and site plan review processes to continue to protect the area from inappropriate development on property adjacent to or upstream from the Lonsdale Marshes. This would also strengthen the planning process for the entire area of the Town.

2. Blackstone Gorge (38)

Description
Blackstone Gorge is over 150 acres of scenic beauty at the Rhode Island and Massachusetts border. Below a rolling dam, the River narrows into a natural gorge and drops 20 feet through a rocky channel while cliffs tower more than 100 feet over the water. The heavily forested banks shelter trails through eastern hemlock and mountain laurel. One of the few stretches of the River to remain wild, the Gorge erupts into white water rapids during the high water seasons. The Blackstone Gorge is a resource of high value in geology, hydrology, and vegetation and represents an important counterpoint to the industrial history of the River.

The Blackstone Gorge will be managed by the Massachusetts and Rhode Island DEMs jointly. The site is used for hiking, intermittent canoeing, fishing and other recreational uses, which would all benefit from better access. A power company located at the head pond dam has a license to withdraw water to generate electricity. A task force of both states' DEMs is conducting a fish study to determine what water flow levels in the Gorge would be sufficient to support aquatic life, sustain long term ecological health, and enhance the site's esthetic quality. The Bikeway will run near the Gorge, bringing more visitors and offering additional opportunities to consider land acquisition and protection. The Blackstone River Valley National Heritage Corridor Commission is currently working with the Massachusetts and Rhode Island DEMs and local communities which own land adjacent to the gorge to develop access and interpretation at this natural resource site.

Issues
Low water flows in the Gorge threaten fish populations and other aquatic life and diminish recreational potential for boating, fishing, and scenic viewing. Mandating higher year-round levels of water at the Gorge, by reducing the allowed water withdrawal of the power company, has to be balanced against regional needs for electricity and the economic operation of the company. Public access is currently limited to the east bank and from the Massachusetts side only, although the Corridor Commission is working with RIDEM and the Town of North Smithfield to develop a trail, parking and signage which will improve access to the Gorge. Some of the Rhode Island land is under private ownership with a long term purchase and sales agreement for RI DEM to acquire it at a later date. The area's unique attributes would benefit from further land protection and a coordinated management strategy. A management plan is needed by both states to address potential development issues and public access concerns. Land protection from the Millville Lock to where the Gorge and Branch River intersect would protect the Gorge from development and facilitate joint environmental and recreational management by both states. Tax liens and other ownership issues are some obstacles to acquisition.

Recommendations

- Assist the DEMs, the Metacomet Land Trust, local communities and others in continued land protection in and around the Gorge and continue to facilitate purchases through conservation organizations like The Conservation Fund.

- Convene appropriate forums for the two DEMs, Towns (and possibly neighbors) to negotiate a shared management plan.

- Implement access and interpretation development through Demonstration Funds based on management agreements.

- Explore possibilities for east-west connections to expand public access to the Gorge.

- Continue to convene state and federal resource agencies to address streamflow issues.

3. Old Section of River and Canal (21)

Description
This site has been frozen in time, trapped between the Blackstone River and the Railroad. Located in Northbridge, MA, it is west of the Blackstone River and the Providence & Worcester railroad tracks, east of Route 122, and south of Riverdale Cemetery and north of St. Patrick's Cemetery. The privately-owned site has been left intact since 1847 when it was separated from the River by the railroad. It contains a well-preserved section of the Blackstone River Canal and towpath and nearly abuts state land also containing canal remnants. There are potential access points to the site from Church Street in Riverdale, Rice City Pond, and from the east side of the Blackstone River. Trail head signs within these areas indicate that hiking is a recognized and prevalent activity within this region. The Rod and Gun Club currently uses the site as a shooting range and social club.

The Northbridge section of the Bikeway is proposed to run on the west side of the Blackstone River along the original towpath. A local property owner on the west side of the River has indicated a willingness to allow the Bikeway to pass through his property. This property is adjacent to remnants of the canal which are often inaccessible due to flooding. By utilizing this stretch of private property, this portion of the canal remnants will be accessible during periods of low flow. There is abundant wildlife and room enough for a parallel system of pedestrian and bike paths. Of regional significance, the site has potentially high cultural and historic value since it could present an intact section of the River and Canal to visitor interpretation and would be connected to other regional canal remnants through the Bikeway.

Issues
The presence of a shooting range is not incompatible with the site but precludes visitor access. An investigation needs to be made as to whether the site is worth protecting, and if so, whether the current use can be relocated. If the Bikeway was routed through the property to run along the east and west banks of the River, the site would be connected to the other unique historical resources of the immediate region.

Recommendations

- Encourage MA DEM to investigate the integrity of the Old Section of River and Canal as a resource.

- Support DEM's efforts to acquire this land to create broader and worthwhile opportunities for recreation and interpretation.

- Review the Bikeway plan to evaluate whether connecting this site to other resources in the region would warrant a spur or rerouting of the planned path.

- Explore feasibility of reconnecting this "oxbow" section to the river by putting a bridge under the Providence and Worcester Railroad and removing portions of the embankment to minimize high-water impacts on the tow path.

4. Goat Hill Lock / Rice City Pond (27)

Description
Rice City Pond is an impoundment area of the Blackstone River in Uxbridge, MA located in the Blackstone River and Canal Heritage State Park. It is an exceptional waterfowl observation site. It incorporates portions of the Blackstone Canal and Towpath and is adjacent to the successful reclamation of a derelict site: MA DEM acquired a former auto junkyard and rebuilt it into a state park. The Pond itself is still one of the most polluted sections of the River, particularly from current non-point source pollution and metal laced sediment from historic discharge. The MA Department of Environmental Protection (DEP) and the Army Corps of Engineers (ACOE) are currently evaluating different methods of reducing or eliminating pollution in the Pond, including stabilizing the sediments, stabilizing the banks, encapsulating, submerging contaminated floodplain areas, bioengineering, and reducing streamflow fluctuations.

Issues
Raising the water level in the Pond to reduce existing contamination would submerge the towpath thereby eliminating a cultural resource. The towpath however has been submerged in the past for a long period of time. The River channel is naturally eroding the edge, in any case, and has already breached the towpath in several places where the River flows into the canal. Cauterizing or sealing the Pond would encapsulate the contaminants and preserve the towpath but would end the life of the marsh wetland: the River would be channeled and eventually be bordered by meadows.

Some interference comes from the site's neighbors. A nearby sewage treatment plant sends effluent odors to the site. Sand piles maintained by the plant are heavily used by minibikers.

The proposed Bikeway circles almost half of Rice City Pond and would benefit from a bridge, either using the two footbridges already in place or a third one dedicated to the Bikeway. The Corridor Commission has been asked to be on the design team for that section of the Bikeway in Uxbridge.

Recommendations

- Support MA DEP's and ACOE's engineering evaluations to control pollution at Rice City Pond and encourage DEP and ACOE to work with MADEM to incorporate DEM concerns into pollution control strategies.

- Support a balanced approach to improving the health of the Rice City Pond area and retention of historic resources for public enjoyment.

- Encourage the Town of Uxbridge to work with the DEP and DEM to enforce regional environmental regulations and strengthen local development controls on surrounding property.

5. Ashton Meadow (51)

Description
Ashton Meadow in Lincoln, RI is one of a few remaining open meadows along the River. Located within the Blackstone River State Park, the Meadow is adjacent to the Kelly House, a historic resource owned, maintained and managed by the RI DEM. The site illustrates one of the traditional landscapes of the Valley – River, meadow, farmhouse, and floodplain forest – later transformed with the advent of mills and worker housing. A well-worn canal towpath, parallel to the River, passes along the site into the forest on either side of the House and Meadow. The Bikeway will pass close by and enhance the visitor's experience of the River and its significant landscapes.

Issues
Maintenance of the Meadow is uneven or sporadic. It needs to be mowed regularly to keep it clear of invasive species. Well-intentioned but poorly-advised landscaping attempts have resulted in conifers being planted in the Meadow, as well as foundation plants and exotics being planted in front of the Kelly House.

Recommendations

- Through the development of the Bikeway provide a forum for the discussion of management issues and the implementation of a maintenance plan.

- Continue to work with the RI DEM through their Cooperative Agreement to clarify various management and maintenance issues.

- Highlight the trail leading to the Albion Floodplain Forest through the old growth forest.

6. Whitinsville Reservoir Watershed (26)

Description
Whitinsville Reservoir Watershed, located in the towns of Sutton, Douglas and Northbridge, MA, contains over 200 acres of undeveloped woods, water resources and wildlife habitat. Much of the land is partially protected under current water protection laws. The site has high scenic, historic, hydrology, vegetation, and habitat values. It is one of three sites from the inventory that are both culturally and naturally significant, the other two being Lime Rock, RI and Coal Mine Brook and Worcester Coal Mine.

Issues
The Reservoir Watershed lands and waters are surrounded by abandoned quarries and vacant land experiencing pressure from residential and commercial development, particularly along Route 146. Water quality in the Reservoir is at risk from this potential development. Another land use being considered is agricultural. The gravel pits, abandoned when extractors reached groundwater level, are suitable for cranberry bogs which spontaneously grow in this land condition. An organic cranberry bog would eliminate the problem of pesticides affecting the water quality and would enable good interpretive opportunities by better preserving the natural landscape. These abandoned areas could also be converted into wetlands according to the Reconnaisance Investigation by the Army Corps of Engineers.

Much of the surrounding area is not sewered and there exist the potential for contamination of the resource from increasing levels of non-point source pollution.

Recommendations

- Encourage the protection of resources such as the Whitinsville Reservoir and its watershed in advance of surrounding development.

- Protect open space so that it is available for public recreational uses compatible with water quality protection such as hiking and cross country skiing.

- Promote public education on the effects of built-up areas on the quality and quantity of water supplies and wildlife habitats.

- Disseminate the *Non-Point Source Pollution Management Manual. A Guidance Document for Municipal Officials*. MA DEP, 1994 – affectionately referred to as the "Mega Manual" – to increase public awareness of the post-industrial factors that affect natural resources and the methods available for protecting this resource.

- Incorporate model gravel pit redevelopment into the curriculum of the proposed Blackstone Valley Institute as one Valley-wide issue to be tackled.

- Encourage efforts like development of the Linwood Pond Trail by the Town of Northbridge and Conservation Commission for public enjoyment of the Reservoir system.

7. Lime Rock (50)

Description
Lime Rock, in Lincoln, RI, contains Rhode Island's only significant and one of only a few outcroppings of limestone in eastern New England. Like Lonsdale Marshes, Lime Rock's primary water sources are the Moshassuck and Blackstone Rivers. Long quarried for its limestone, the site is now host to one of Rhode Island's largest concentrations of rare plants associated with the underlying calcareous bedrock. The unique terrain of alkaline rock quarry is habitat for the purple-stemmed cliffbrake, the walking fern and the showy orchid. The mixture of mesic forest, circumneutral seepage swamp, streamside slopes and calcareous ledges nurture some 20 occurrences of rare plants. Lime Rock has high cultural value in every category: traditional land use, scenic and historic. It has significant geology, vegetation and habitat and represents an important local and regional resource.

Land is controlled by many owners including The Nature Conservancy, the Town of Lincoln, The Lincoln Land Trust and several key private owners. The largest private owner is a quarrying company which has significantly reduced excavation operations but uses the site for processing and storage. It is expected that the quarry will close at some time in the near future.

The Lincoln Water Commission is interested in using the quarry as a second source of drinking water for the town and could potentially reuse the vacant processing building to house a water pump. The Nature Conservancy is also interested in acquiring additional parcels.

Issues
This old quarry needs to be protected because of its natural and cultural significance. This is a high priority site for protection and interpretation within the National Heritage Corridor.

Recommendations

- Initiate a protection and interpretive strategy with the Town, property owners, and other partners as soon as possible in anticipation of the cessation of quarry operations.

- Initiate discussion with the Conklin Lime Co. to help determine a timeline for the actual closing of the quarry to ensure adequate planning for the preservation of the site.

- Encourage the Town of Lincoln to work with the RI Natural Heritage Program and other parties towards protecting the site.

River Sites with Past and Ongoing Initiatives

8. Fisherville Mill and Pond (11)

Description
Fisherville Pond is located at the confluence of the Blackstone River and Quinsigamond River in South Grafton. It consists of 100 acres of emergent wetland habitat and 45 acres of shallow open water habitat. The Pond is an important site along the North American Flyway for migratory waterfowl and hosts a somewhat diverse community of warm water fish. Problems with the spillway gate have left it open, thus, lowering the water level and jeopardizing the habitat. Toxic sediments behind the dam threaten water quality. In addition, siltation of the Pond has had a detrimental effect on the habitat value. This site has high values for habitat, traditional land use and historic significance. It is both a regional and local resource.

Issues
The historic mill at Fisherville Pond is targeted for redevelopment and is facing obstacles of environmental cleanup. Chlorinated solvents in groundwater threaten the South Grafton water supply. There is substantial contamination in the surface water, soil, and groundwater. Oil from former fuel storage tanks, now removed, and from years of direct discharge, has accumulated to a depth of 30' adjacent to the canal and is seeping into the canal. There are still numerous drums to be removed from the site and along the riverbed. Not all of them contain contaminants: a curious discovery was a series of buried drums containing discarded lawn furniture. Additional run-off from the pond could be sent to sewers. The dam itself is leaking from lack of repairs, further threatening water quality in the canal and River. The Army Corps of Engineers is investigating the site. Proper jurisdiction must be determined as it is not clear whether the Army Corps can make repairs. The Central Mass Economic Development Authority is presently in the process of assessing and remediating the site prior to acquisition. The ultimate goal of the project is restoration of the water quality to reestablish the Pond and adjacent marsh areas as a site for the migratory bird population while providing water power for use at a constant rate for the mill site.

Recommendations

- Establish Fisherville Mill and Pond as a high priority site because it represents the convergence of several key goals of the Corridor: environmental remediation, historic preservation, economic development, and wildlife habitat restoration.

- Support the continued concerted efforts of the public and private groups so far involved and the potential recruitment of other parties: the property owner, the Army Corps of Engineers, the MA DEP and Fish and Wildlife, the Town of Grafton, the Central Massachusetts Economic Development Authority (CMDEA) and advocacy groups such as Ducks Unlimited.

- Serve as convener as necessary so that public agencies and private interests collaborate on developing an implementation plan and timeline for the restoration of Fisherville Pond to its full potential.

- Investigate alternative sources of funding and how they can be applied to dam rehabilitation.

9. Fish Passage Facilities on the Lower Blackstone

Description
Four dams at mill sites along the Lower Blackstone River in Rhode Island are physical obstacles to the migration of anadromous fish swimming back from the ocean to spawn upstream along the River.

Issues
Fish passage facilities are an important component of restoring the ecological health and recreational potential of the River. Individual mill owners control the dams which are physical barriers to the upstream migration and spawning of anadromous fish. These dam owners are regulated under the Federal Energy Regulatory Commission (FERC) and are required as part of their dam permits to construct a means for fish passage. The costs of building fish ladders at the dams are prohibitive and in the case of these four mill dams, the large economic investment with no fiscal return has the potential to jeopardize the economic viability of the mill operations. In addition a number of regulatory agencies must be involved to enjoin mill owners to furnish fish passages. The RI Fish & Wildlife Division must determine the fish passage as a priority action to the State of Rhode Island who in turn must request the federal Fish and Wildlife Agency to petition FERC to invoke licensing requirements.

These issues create several problems. The economic impact to dam owners could be severe, breaching a dam may release contaminated sediments downstream, and a study to determine the type of fishing (catch and release versus unrestricted fishing) would be required before any recreational value could be realized by the return of anadromous fish. For further detail on potential actions, the Army Corps of Engineers Reconnaissance report recommendations have been included as Appendix C. In conclusion, this issue hinges primarily on an economic evaluation of alternative solutions and the need for fiscal support and cooperation of a diverse group of interested parties.

Recommendations

- Support efforts to remove obstacles to migratory fish by encouraging mill owners to build fish passage facilities at their dams.

- Encourage parties to search for precedents of fish ladders built at private dams along riverways and explore funding alternatives.

- Support a concerted process of coordination among mill owners, state agencies and volunteer groups to pursue solutions feasible to all parties and contributing to the restoration of anadromous fish populations in the River.

10. Rockdale Pond (19)

Description
Rockdale Pond is a 15-acre former pond in Northbridge, MA along the Blackstone River. While the watershed of Rockdale Pond provides good habitat for waterfowl and fur-bearing mammals such as hare, muskrat and mink, the Pond itself is now a former toxic waste site offering the appearance of a barren moonscape. The site is devoid of any vegetative cover as the highly contaminated sediments of the former pond, including chlorinated solvents,

cannot support current varieties of plant life. It would be a good candidate for bioengineered plant life. Contamination has spread to the groundwater as well, while the source of contamination is unknown.

Rockdale Mill, adjacent to the Pond, hosts the Annual Blackstone River Canoe Race and represents a significant access point for these canoes.

Issues
The Army Corps of Engineers is investigating ways of stabilizing the Pond's banks and sediments by temporarily capping the site and attempting to restore vegetation. The source of contamination however, would remain undetermined and untreated which is of great significance since it is spreading through the groundwater.

Because the land is privately owned, a variety of insurance and liability issues limit public access which is granted only by special permission.

Recommendations

- Encourage the MADEP and other potential partners to help identify the source of contamination. Depending on results, removal of contaminants might be possible.

- Encourage the Army Corps of Engineers to apply successful solutions to Rockdale Pond that may emerge from MADEP's investigation of stabilization and bioengineering at Rice City Pond.

- Allocate high priority to the recovery of this site as an example for the responsible restoration of particularly challenging derelict sites.

- Increase public access to the site to support its full recreational development, building on the annual canoe race.

11. River Bend Farm Viewshed — Lookout Rock, Shining Rock (22, 20)

Description
River Bend Farm is the site of a Corridor Visitor Center on the Blackstone River in Uxbridge, MA in the Blackstone River and Canal Heritage State Park. From this property significant viewsheds extend outward, which need to be protected. Satellite dishes and other obstructions mar views of the River and Valley from Lookout Rock (also known as King Philip's Rock) and Shining Rock to the north.

Shining Rock is a conservation area to the east of School Street in Northbridge. It includes the site of a historic cider mill near Peppercorn Hill. Shining Rock borders an abandoned granite quarry and provides an exceptional view of Northbridge atop a 150 foot cliff. The rock face contains shiny particles of mica which sparkle in the sun's light as water runs over it. This quality helped to establish the rock as a unique landscape feature designated by the Conservation Commission.

The site has high scenic and geological values and is a significant local resource. Lookout Rock has high geological and scenic values as well, and is considered a resource of regional significance.

Issues
The Shining Rock and Lookout Rock viewsheds are threatened esthetically by visual obstructions from satellite dishes and other modern man-made structures. The River Bend Farm viewshed is threatened by a proposed subdivision on the east side of the River.

Shining Rock is adjacent to a potential residential development which will change the view of the area. Only partially protected, Shining Rock needs additional protection in the form of land acquisition. Other possible subdivisions are being discussed for the hillside across from River Bend Farm. This development could be mitigated by MADEM who is interested in protecting more of the viewshed. Open spaces could be preserved by implementing performance standards for development that do not have negative impacts on the wetlands.

The Shining Rock site would benefit from a trail to the River and adequate signage to accommodate canoeists who would like to hike to the site and back.

Recommendations

- Encourage local towns to incorporate viewshed overlay districts to regulate the location, size, screening and color of satellite dishes and other obstructions, and/or to discuss agreements with owners.

- Explore with MADEM protection strategies to prevent the development of hillsides in significant viewsheds and alternatives for strategically landscaping and screening development when inevitable.

12. Canal Protection — Skull Rock (31)

Description
Skull Rock is located in South Uxbridge, MA at an attractive section of the Blackstone Canal connecting to Millville. The site contains stone canal walls and lock remnants west of Route 122 and the Blackstone River, as well as a bridge which was originally used for horse crossings and, therefore, has high interpretive value with opportunities for the Bikeway. The site has high cultural values of history, traditional land use, and scenic character.

Issues
The South Uxbridge site is currently unprotected and needs to be acquired. Skull Rock is located close to the Bikeway and could be an interpretive site.

Recommendations

- Collaborate with MA DEM to preserve the site and provide public access, through ownership or conservation easements.

13. Slatersville Reservoir System and Branch River (39)

Description
The Slatersville Reservoir was created by a series of dams on the Branch River from Slatersville into Burrillville. Raceways and canals carried water from the dams to John Slater's mill and others along the river. Many of the mill buildings remain as do the remnants of the water works which powered the mills. The Reservoir is privately owned and most of its western shore, with the exception of a thin strip of land, is developed. A portion of the south eastern shore of the Branch River and Reservoir west of the Slatersville Stone Arch Bridge remains in its natural state. While the owner of the Reservoir operates a sand mining and processing operation on a large part of the remaining southeast shore, views across the Reservoir to the upper dams from the planned library park are quite scenic. The rare plant climbing fern is found in a portion of the mining area located in Burrillville.

An interpretive trail on land owned by the North Smithfield Public Library is planned along a mill race and onto an island which was once the site of a large mill complex. The trail will improve access to the Reservoir for passive and active recreation. Interpretive features will help tell the history of the mills and the water that powered them.

Issues
Access to the Reservoir and River along with ownership of these resources are issues which the Town of North Smithfield has been discussing with property owners. Water use and quality issues are also a concern given surrounding land uses and plans for rezoning a large area of land to the south and east of the reservoir for light industry. A closed landfill and hazardous waste site undergoing remediation is in close proximity to the Reservoir System.

Recommendations

- Collaborate with the Town of North Smithfield in the protection and interpretation of the Slatersville Reservoir System.
- Support the Town, RIDEM and the EPA in the ongoing cleanup of the landfill site.

WORCESTER HEADWATERS – KEY WATERWAYS SUPPORTED BY LOCAL COALITIONS

14. Coes Reservoir (3)

Description
Coes Reservoir is a 100-acre property at the Worcester headwaters in the Tatnuck Brook Watershed. The historic Coes Knife Company – where the monkey wrench was invented – formerly occupied the site. It contains the largest man-made impoundment in the Valley and is used for nature walking, ice skating, fishing, and cycling and provides parking and several public access points. The Reservoir is classified as a Great Pond and Wetland and provides public access to nearby open spaces.

Issues
The Reservoir is lined with toxic sediment, though some funds have been appropriated to repair the dam. The contamination at the site including razed buildings is being remediated. There is good potential for interpretive development at this site. Funding has been secured by the City of Worcester to work with local interested parties to develop a master plan for an intermodal trails/park center.

Recommendations

- Assist in exploring funding alternatives to repair the dam so that the project can be implemented.

- Work with the City of Worcester, Coes/Patches Watershed Association, Webster Square Business Association and additional local interests to obtain funding and develop an intermodal trails/park center with historical and environmental interpretive facilities.

15. Broad Meadow Brook (9)

Description
Broad Meadow Brook is a tributary of the Blackstone River and flows through Worcester's largest protected open space: the Massachusetts Audubon Society's Broad Meadow Brook Wildlife Sanctuary. The Sanctuary is a 277-acre urban wildlife preserve, one of the largest in New England, composed of oak woods, streams, marsh and swamp and providing habitat for a diversity of animal species. Its wildlife includes the state-threatened marbled salamander, and the spotted turtle, a species of special concern. An unusually high number of birds have been identified in the Sanctuary, including the sharp-tailed sparrow, the white-eyed vireo, the sora rail, the bald eagle and the blue grosbeak. The Sanctuary also contains the largest number of butterfly species of all of Massachusetts Audubon's sanctuaries. The Massachusetts Audubon Visitor Center is located at the Sanctuary. The site's ownership is divided among Mass Audubon, New England Power, the City of Worcester and a private institution.

Most of Broad Meadow Brook itself is in a man-made channel in the northern area of the Wildlife Sanctuary, and is culverted further upstream.

Broad Meadow Brook is contaminated by non-point source pollution from urban uses upstream as well as occasional overflow from a sewage pumping station. Additional development further threatens the water. The site has both local and regional significance because of its important habitat.

Issues
This site offers the opportunity of a river restoration project, to restore habitat and improve water quality in the City. Catholic Charities, which owns part of the site, is resisting any attempt at permanent open space protection since it would decrease the amount of their developable land, which they would like to sell for residential development. Attempts to purchase the Catholic Charities section for conservation purposes, both to protect it from development and to link it to the network of adjacent open spaces, have so far been unsuccessful.

Recommendations

- Encourage efforts to protect from development the portion of the site owned by Catholic Charities and help build community support for Audubon ownership.

- Support the restoration of Broad Meadow Brook's natural channel and flow, to benefit wildlife habitats and improve water quality in an urban environment.

16. Confluence of Middle and Blackstone Rivers (7)

Description
The convergence of the Mill Brook and the Middle River forms the beginning of the Blackstone River. The Mill Brook, as it runs under the city in a conduit, is considered the route of the historic Blackstone canal. It is located at Quinsigamond Village in the City of Worcester.

Issues
The confluence is the site of historic structures in Worcester including a 1717 grist mill and 1793 Isaiah Thomas paper mill, and Washburn & Moen wireworks complex. The beginning of the Blackstone River, at the confluence, is believed to be part of a "slackwater" section of the Blackstone Canal. The general area of the confluence has been targeted as a site for a northern gateway visitor center for the Corridor. There is interpretation potential, and also opportunities for a bike path and a river access / portage site to provide access upstream to the Middle River, and downstream to the Blackstone River. Adequate land for parking and public access for viewing headwaters and other historic features is needed. There is additional restoration potential because of the site's high historic and cultural value. The convergence of the two rivers is of regional significance to the Valley.

Recommendations

- Support the development of a continuous Greenway along the River.

- Support the development of a northern Visitor Center for the Blackstone Corridor, and encourage the City of Worcester, MADEM and additional partners if necessary to devote the area around the convergence, including the northwest corner of the Patriot Metals site, to the visitor center, to park open space, to greenway/river access and to interpretation of historic resources.

- Encourage a volunteer clean-up as a first step toward reclaiming the river.

17. Beaver Brook (4)

Description
Beaver Brook is culverted and channelized for most of its length, running through the western part of Worcester. Along its way it runs under the City's Beaver Brook Park and parallel to the Beaver Brook Parkway. The corrugated cover of the culvert is beginning to collapse from deferred maintenance. The culvert, undersized for the increased stormwater flow of the urbanized areas around it, needs to be enlarged. Offensive odors, from unknown sources, emanate from places along the covered brook.

Issues
Because the culvert needs to be replaced and enlarged, there is an opportunity to open the brook to daylight. This restoration of a natural brook through a park would also help to locate and remove the source of offensive odors, most likely caused by illegal dumping and poor air and water circulation, while discouraging further pollution. Hidden pollution will threaten the site until the Brook is uncovered. A Clark University student is currently conducting a survey of residential neighborhoods around Beaver Brook to illustrate potential impacts as the culvert continues to deteriorate.

Recommendations

- Encourage the continued involvement of the Army Corps of Engineers and the City of Worcester in the recovery and daylighting of Beaver Brook and adjacent lands.